



## Arrhythmias and Clinical EP

### REASSESSMENT OF CARDIAC FUNCTION AND IMPLANTABLE CARDIOVERTER-DEFIBRILLATOR USE AMONG MEDICARE PATIENTS WITH LOW EJECTION FRACTION AFTER MYOCARDIAL INFARCTION

Poster Contributions

Poster Hall B1

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**Background:** Guidelines recommend that patients with a low ejection fraction (EF) post-myocardial infarction (MI) be reassessed after 40 days for an implantable cardioverter-defibrillator (ICD). This study examines rates of EF reassessment (EFRA) by revascularization status in post-MI patients with low EF.

**Methods:** We identified 10,289 MI patients  $\geq 65$  years with an EF  $\leq 35\%$  during the index admission from 1/2007 - 9/2010 in ACTION Registry®-GWTG. Post-discharge EFRA was ascertained via linked Medicare data, although the remeasured EF value was not available. Multivariable Cox models tested the association between EFRA as a time-dependent variable and 1-year ICD implantation, stratified by revascularization status during the index MI admission.

**Results:** By 1 year, 67% of MI patients with low EF had EFRA by any imaging modality. Revascularized MI patients were more likely to have EFRA than non-revascularized patients (77% vs. 54%,  $p < 0.001$ ). Median time from discharge to EFRA was 67 (IQR 31–134) days for revascularized and 84 (IQR 34–198) days for non-revascularized patients. Even among patients with EFRA, only 11% received an ICD within 1 year. Regardless of revascularization status, EFRA was significantly associated with ICD implantation (Table).

**Conclusion:** In US clinical practice, EFRA was performed commonly within 1 year post-discharge and was strongly associated with ICD implantation. Yet for these older MI patients, ICD implantation rates at 1 year remain low, even among patients with EFRA.

Table: Association between EFRA and ICD implantation within 1 year

	Rate of ICD Use Among EF Reassessed	Rate of ICD Use Among EF Not Reassessed	Unadjusted HR (95% CI)	Adjusted HR (95% CI)
Revascularized patients	12.1%	2.4%	13.1 (9.5-18.0)	10.6 (7.7-14.8)
Non-revascularized patients	10.0%	1.7%	6.4 (4.6-8.9)	6.1 (4.1-9.2)